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MEET THE SPECIALIST



Calvin Trostle

**Professor & Extension Agronomist
State Hemp & Sunflower Specialist**

Growing up on the Kansas family farm, being a member of the local 4-H club, and attending his first school (Dee Trostle School of Agriculture) laid the foundation in agriculture for Dr. Calvin Trostle. Dr. Trostle received an agronomy degree from Kansas State and graduate training in soil and plant nutrition at Texas A&M then the University of Minnesota. Calvin has worked in Extension for almost 25 years, 2.5 of those years he spent in Beaumont, TX. He has enjoyed engaging with farmers mainly in West Texas to answer questions and bring them the information they can use on their farm or ranch and a wide range of crops to make management decisions. He admits that while new technologies like drones, management of huge data sets, and others are passing him by, he is focused on the fundamentals like planting date, seeding density, fertility, irrigation management, etc because “without these, drones and big data are not reliable”. I’ve personally worked with Dr. Trostle on a number of crops but his main research interest is wheat varieties, industrial hemp fiber varieties and management, lesser oilseed crops, grain sorghum, guar as a heat-tolerant/drought tolerant legume for dryland in West Texas, and Rhizobium inoculants and proper application methods in legumes. These interests have led to some new research that he will be involved in this year. Dr. Trostle will be implementing some novel intercropping methods for companion crops in wheat production with the University of Messina, Sicily, Italy. He is currently providing a test site at Lubbock for Cornell Univ. to test hemp fiber lines that have no measurable THC, the narcotic compound in marijuana. He has also decided to apply and test for professional Certified Crop Advisor certification, which has become an increasing focus of educational programs.

Outside of work, Calvin enjoys spending time with his wife Beth of 27+ years and their three daughters, Broadway musicals, events at the Buddy Holly Hall for Performing Arts in Lubbock, reading history, and caring for his 47 varieties of roses growing in his yard, .

Contact Me!

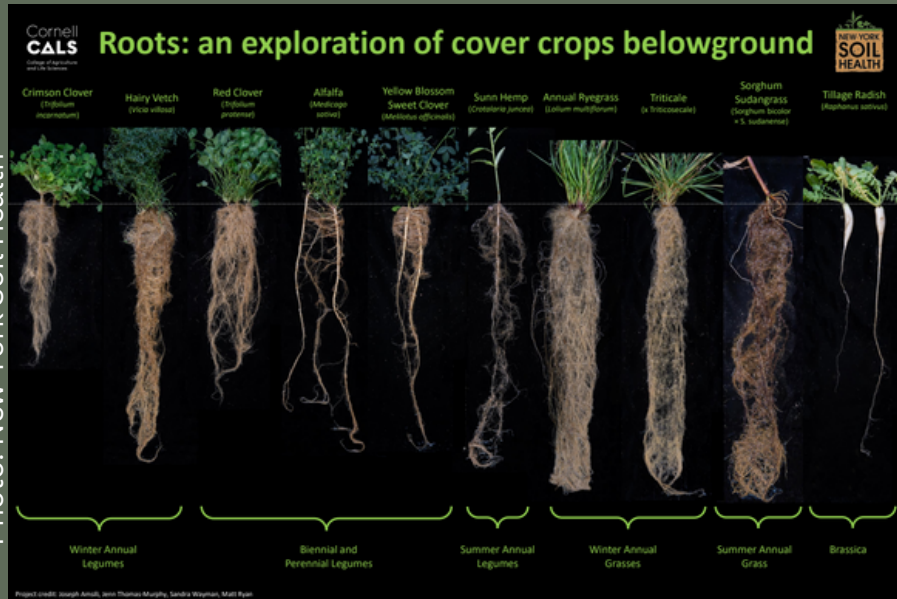
Got an idea, question, or
comment?

Kristie Keys
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325-665-8790

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IRRIGATING FOR CROP ROOT DIFFERENCES

Have you seen this image below while scrolling on your social media lately? It has been all over my social media and I was very interested in the research behind this project and also thought, what a great visual for my newsletter topic this month... roots! In this graphic, they are discussing how different types of cover crops have different root systems that hold the soil in place and provide resilience to soil erosion during heavy wind or rainfall events. My interpretation of this poster was how different the root systems of crops can be. Just look at it; you have some roots that are just huge amounts of “hairs” (fibrous) and you have some that you can clearly see the main root with small branching roots (tap). Let’s dig deeper!!



Tap vs. Fibrous

↓ READ MORE ↓



I’m going to take you back to high school horticulture class! There are a number of root systems you may encounter; stolons, rhizomes, adventitious, corms, tubers, fibrous, tap, and other specialized roots. We are just going to focus on fibrous (left) and tap (right), I’ll let you do your own research on the others. Roots play a critical role in crop growth as they are the source where water and nutrients are absorbed. A few quick facts:

Fibrous- found in grasses and monocotyledons, consists of a mass of roots about equal diameter, branching occurs from the base of the stem, horizontal and wide spreading with only a few vertically downward roots, can extract water up to 6+ feet below ground

Tap- main root grows down into the soil, secondary roots grow laterally from main stem, can extract water up to 8+ feet below ground



I scanned multiple research papers to figure out if the root distribution in fibrous and tap roots had anything to do with water uptake and while I didn’t find definitive results because it just depends on the crop you are growing, I can say the majority of the fibrous root system crops have an abundance of roots in the top 12 inches of the soil. What does this mean for irrigation? Know the root system of the crop you are growing and make management decisions on whether the roots are concentrated in the top 12 inches or go deeper.

Contact Me!

Got an idea, question, or comment?

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COVER CROPS: LEGUME COVER CROPS

A legume crop belongs to the Fabaceae family and is a flowering plant. They form symbiotic relationships with bacteria called *Rhizobia* or *Bradyrhizobium* that “fixes” nitrogen deficiency in the soil. The plant provides nutrients for the rhizobial bacteria growth and in return, the plant receives the available nitrogen. The fruit is grown in a pod. Legumes are not only used as feed in livestock but are a staple food in the human diet that is rich in proteins and fiber. According to Dr. Reagan Noland, “legume cover crops have the potential to offset nitrogen fertilizer inputs and provide a high-value forage source for livestock”. Perennial or biennial legumes can function as a cover crop or a rotational crop depending on when you plant or how it’s harvested.

EXAMPLES OF LEGUME CROPS

Alfalfa

Clover

Pea

Vetch

Benefits:

- 1) fix atmospheric nitrogen - converts nitrogen gas in the atmosphere into soil nitrogen, however, proper inoculation can increase soil nitrogen levels (inoculant guide available on castro.agrilife.org or send me an email)
- 2) prevent erosion
- 3) add organic matter to the soil - won't increase soil organic matter as much as grasses but residue breaks down quicker because of lower carbon content increasing the availability of nutrients for the next crop
- 4) reduce the need for herbicides by suppressing weeds - any cover is better than no cover

Mixing legumes and grasses in a cover crop can combine the benefits; increasing biomass production, nitrogen additions and scavenging, weed, and erosion control. There is no one cover crop that fits all and a cover crop might not even fit your operation. Weigh your options and balance costs against returns to decide the best option for you.

Photo: 2023 Winter Pea demonstration trial near Flagg, TX with producer Jonathan Harris. Picture taken November 13. The crop was planted on October 20. Varieties included are WyoWinter and Austrian Winter. More information to follow!



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AG MASTERMINDS

TREE PRUNING TECHNIQUES

**PRESENTED BY:
DR. CYNTHIA MCKENNEY**

1.29.24

10am

Texas A&M AgriLife Extension
Hale County
225 Broadway St Ste 6
Plainview, Texas 79072



AG MASTERMINDS

RSVP not required but encouraged! Contact Kristie Keys at 325-665-8790.



Snack Sponsorships
Available

No Ag Mastermind for December as I prepare for multi-county crops conferences.

Some ideas for upcoming Ag Mastermind programs are:

- USDA programs
- Rotations with cover crops
- Irrigation budgets
- Innoculants
- Producer panel (get your nominations ready!)

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OTHER PROGRAMS

Lamb County AG Conference

December 19, 2023

5 CEUs

**RSVP by
December 14th**

**at Littlefield Methodist
Church**



Vendor booths
available
\$100

- 8:30 ~Registration
- 8:55 ~Welcome
- 9:00 ~Barry Evans: Concentrating Water on Less Acres
- 10:00 ~David Parker : Acreage optimization tools for crop water management
- 11:00 ~Calvin Trostle : Wheat Rotation Considerations & Cropping System Management
- 12:00 ~Lunch Sponsored by Capitol Farm Credit
- 12:15 ~Kristie Keys : Drift Minimization
- 1:00 ~Tim Steffens : CRP vs. Grazing Considerations
- 2:00 ~Tim Davis - Texas Department of Agriculture : TDA Updates
- 3:00 ~Kerry Siders : IPM Updates
- 4:00 ~Wrap Up and Evaluation



RSVP BY CALLING
(806) 485-9135



RSVP ONLINE
ashlee.walker@ag.tamu.edu

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If you need any of these emailed to you, please reach out.

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OTHER PROGRAMS

BEEF QUALITY ASSURANCE TRAINING

DATE: December 5, 2023

TIME: 9:00 am - 1:00 pm

LOCATION: Hale County Extension Office

225 Broadway #6

Plainview, TX 79072

Lunch provided

Topics Include: Residue Avoidance - Vaccine Handling - Proper Injection Technique - Genetic Selection - Environmental Stewardship - Cattle Handling & Welfare

Hosted by Hale and Floyd County Extension



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To register for the event, contact Andy.Hart@ag.tamu.edu or (806) 291-5267

QuickBooks Online Training for Farmers and Ranchers

Plainview Workshop

COURSE INFORMATION

QuickBooks Online Plus is a powerful farm accounting software that helps small and medium-sized businesses manage their inventory, bookkeeping, payroll, and more. The primary goal of this QuickBooks training course is to help farmers and ranchers improve their financial record-keeping and analysis capabilities, which allows them to make better management decisions.

Lessons

- Utilize program features & become familiar with accounting terms
- Identify list basics and learn how to navigate the chart of accounts
- Practice using the forms and registers most often seen in QuickBooks Desktop
- Learn the QuickBooks inventory feature

Course Details

Date: December 7th, 2023

Time: 9:30 am-3:30 pm

Cost: \$100 per computer

Location: 225 Broadway #6
Plainview, TX 79072

To register, click on the following link:

[Register Here](#)

Space is limited so enroll now and make QuickBooks Online work for you!



Instructor

DeDe Jones
Extension Program Specialist
Email: djones@ag.tamu.edu

If you need any of these emailed to you, please reach out.

Generation Next: Our Turn to Ranch Online Ag Business Start-up School

The **Generation Next** curriculum targets new landowners, those inheriting land, or those looking to start a new agricultural operation on an existing ranch. It is taught as an online school where participants will work towards developing a business plan with plenty of support from professionals who specialize in each field and topic.

Course Includes: 12 online classes of expert instruction with a complete business plan by the end of the course, and a **Generation Next** t-shirt and certificate.

Topics covered:

- How to start an agricultural business
- Understanding business taxes
- Insurance needs for your ranch
- Tracking your finances
- Evaluating your land resources
- How to set up grazing and wildlife management leases
- Basic ranch laws – fencing, water, etc.
- Land management techniques
- Alternative operations & direct marketing
- Setting goals with measurable objectives for success

To read what graduates are saying about the course, visit generationnext.tamu.edu



The members of Texas A&M AgLife will provide equal opportunities in programs and activities, education, and employment to all persons regardless of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation or gender identity and will strive to achieve full and equal employment opportunity throughout Texas A&M AgLife.

NEXT ONLINE CLASS:
JAN. 29 - APR. 21, 2024

The course will require approximately 2 hours of your time (at any time!) per week, for 12 weeks. You only need access to a computer with internet capabilities.

For more information contact:
Dr. Megan Clayton
megan.clayton@ag.tamu.edu
830-988-6123
generationnext.tamu.edu

Registration Fee: \$300
Enrollment is limited to the first 100 people who register.

Registration Link:

GenerationNext:OurTurntoRanch-Spring2024Courses1.AgrilifeLearn.Tamu.edu



Contact Me!

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Save the Date



November 28-30- Amarillo Farm Show

December 5- Hale/Floyd BQA Training **see flyer above

December 7- QuickBooks Training (Plainview) **see flyer above

December 19- Lamb County Crops Conference **see flyer above

December 21- Regional Crops Conference @ Castro County
Extension Office (Virtual Program)

January 9- Castro County Crops Conference

January 18- Mid Plains Ag Expo (Hale/Swisher)

January 29- Ag Masterminds (Plainview)

****Stay tuned to social media and newsletters for more events****

Now is the time to check your accumulated CEUs for the year and see how many and which ones you still need!



<https://castro.agrilife.org/agronomy/>



<https://www.facebook.com/castrohalelambagronomy/>



<https://twitter.com/KeysToAgronomy>

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